

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

RECEIVED

MAR 16 1999

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )

Prescribing the Authorized  
Unitary Rate of Return for  
Interstate Services of Local  
Exchange Carriers )

CC Docket No. 98-166

### REPLY COMMENTS OF GTE

GTE Service Corporation and its affiliated domestic telephone operating companies (collectively "GTE")<sup>1</sup> respectfully submit these comments in response to the Notice of Proposed Rulemaking in the above-captioned proceeding.<sup>2</sup> By the *Notice*, the Commission initiated a proceeding to consider represcription of the authorized rate of return for interstate access services provided by incumbent local exchange carriers ("ILECs") subject to rate of return regulation.

In the *Notice*, the Commission sought responses on the methods that should be used to calculate the ILEC's cost of capital. One such response was filed by the

---

<sup>1</sup> GTE's domestic telephone operating companies are: GTE Alaska Incorporated, GTE Arkansas Incorporated, GTE California Incorporated, GTE Florida Incorporated, GTE Hawaiian Telephone Company Incorporated, The Micronesian Telecommunications Corporation, GTE Midwest Incorporated, GTE North Incorporated, GTE Northwest Incorporated, GTE South Incorporated, GTE Southwest Incorporated, Contel of Minnesota, Inc., and Contel of the South, Inc.

<sup>2</sup> Prescribing the Authorized Unitary Rate of Return for Interstate Services of Local Exchange Carriers, CC Docket No. 98-166, *Notice Initiating A Prescription Proceeding and Notice of Proposed Rulemaking*, FCC 98-222 (released October 5, 1998) (hereinafter "*Notice*").

General Services Administration ("GSA"). However, as the attached affidavit of Dr. James Vander Weide demonstrates, the approach used by the GSA is seriously flawed: "[T]he GSA has significantly underestimated the ILECs' weighted average cost of capital."<sup>3</sup> In light of this flaw, GSA's approach must be disregarded.

**I. GSA INCORRECTLY ESTIMATES SEVERAL IMPORTANT POINTS IN ITS DIRECT CASE.**

The attached affidavit by Dr. James H. Vander Weide reviews the GSA direct case filed in the initial round of this docket. Dr. Vander Weide concludes that the GSA makes several errors in its analysis and as a result significantly underestimates the ILECs' weighted average cost of capital. The GSA recommends a 9.5 percent allowed rate of return for those local exchange carriers still subject to rate of return regulation. This GSA recommendation is based on a 7.39 percent estimate of the ILECs' cost of debt, a 10.75 percent estimate of the ILECs' cost of equity, and a capital structure containing 44 percent debt and 56 percent equity. The resulting weighted cost of capital of 9.27 percent is then rounded upward to their recommended 9.5 percent.

As demonstrated by Dr. Vander Weide, the GSA's approach fatally suffers from six flaws: (1) the use of historical book value estimates of the cost of debt and capital structure components rather than market value estimates; (2) the use of the Regional Holding Companies ("RHC's") as proxies do not satisfy basic stability assumptions of the DCF model; (3) the use of historical data to estimate the rate of future earnings per share growth; (4) the lack of market weighting in averaging DCF results; (5) the

---

<sup>3</sup> See Affidavit of James H. Vander Weide, a true and correct copy of which is attached hereto ("Vander Weide affidavit") at 5.

underestimation of the measure of business risk that the ILECs face; and (6) the use of a DCF model that does not recognize the quarterly payment of dividends or the occurrence of flotation costs. A brief summary of each of these points follows.

**A. GSA Incorrectly Uses Historically-Oriented Book Value Estimates, Rather Than The Correct Market Value Estimates Of LEC Cost Of Debt And Capital Structure.**

The GSA's historical cost data, book value definitions of the cost of debt, and capital structure components of the ILEC's weighted average cost of capital are inconsistent with the forward-looking economic definition of the weighted average cost of capital. Economic and financial theory require that the cost of debt be measured in terms of market interest rates, not embedded costs and capital structure be measured in terms of the market values of debt and equity instead of book values. If the Commission accepts the GSA's flawed definitions of the cost of debt and capital structure, it will send incorrect signals to the capital markets causing unintended market inefficiencies. This includes the impact of an artificially low proscribed rate of return on investors searching for investment opportunities in the telecommunications market. Artificially low rates of return would discourage new investment in the very infrastructures and technologies that the Commission encourages. Investors need to have the proscribed rate of return reflect the true market environment.

**B. GSA Fails To Recognize That The RHC's Do Not Satisfy The Basic Stability Assumptions Of Traditional Cost Of Equity Estimation Techniques.**

The GSA's proxy group of RHC's does not comply with the basic assumption of the Discounted Cash flow ("DCF") Model that assumes business operations and financial and dividend policies remain relatively constant. The GSA selects a group of companies (RHCs) that due to the current business environment of mergers, acquisitions and strategic investments in new technologies do not meet this criteria. This selection of an incorrect proxy group only underestimates the cost of equity. Dr. Vander Weide explains that the GSA could have avoided the incorrect proxy problem by choosing a group of companies of comparable risk to the ILECs such as the S&P Industrials. He then performs analyses that show how the selection of a correct proxy group affects the true calculated rate of return.

**C. GSA Uses Historical Data Incorrectly To Estimate The RHCs' Future Growth.**

The GSA incorrectly estimates the growth component of their DCF Model. The GSA combines the five-year Analysts' Consensus Estimate ("ACE") of future earnings per share ("EPS") growth with another growth estimate that they incorrectly characterize as being an analysts' "three-year forecast of earnings per share."<sup>4</sup> Dr. Vander Weide shows that by incorrectly combining these growth rates, not only is the historical growth rate underestimated, but that the historical rate is completely inconsistent with the GSA's own estimate of future growth rates. In addition, the GSA

---

<sup>4</sup> GSA Direct Case, at 9.

fails to recognize that historical growth is not a good indicator of future growth for companies whose businesses are being fundamentally transformed by competition, deregulation, and rapidly changing technology. The use of GSA's historical growth rates alone cause the GSA to significantly underestimate the ILECs' cost of equity.

**D. GSA's Use Of The DCF Model Incorrectly Ignores Market Weighting.**

Financial analysts generally use market value weighted average DCF results to reflect the fact that investors hold more of large companies in their portfolios than small companies. The GSA estimates the ILECs' cost of equity by calculating an equally-weighted average of their DCF estimates for each of the five RHCs. The GSA's use of an equally-weighted average has a significant effect on their cost of equity estimate because of the considerable disparity in the GSA's DCF results across the RHCs and the disparity in the size of the RHCs. The GSA's use of equal weighting further reduces their cost of equity estimate for the ILECs.

**E. GSA Exhibits A Gross Misunderstanding Of The Risks The ILECs Face In Providing Interstate Access Service.**

The GSA grossly underestimates the risk associated with the telecommunications business. It continues to assume that access services are offered in a low-risk, near monopoly environment. This is certainly no longer the case. Dr. Vander Weide shows that access services are among the riskiest of the RHCs' telecommunications services and because of these added risks, the overall risk assessment by the GSA is substantially underestimated. This error also helps to falsely decrease the overall required rate of return for the ILECs.

**F. GSA Incorrectly Uses A DCF Model That Does Not Recognize The Quarterly Payment Of Dividends Or Occurrence Of Flotation Costs.**

Dr. Vander Weide shows that the GSA has incorrectly applied the DCF Model in regard to the assumption of the timing of dividend payments. The GSA's use of the Annual DCF Model for firms that pay dividends quarterly is inconsistent with financial theory and practice. Financial theory suggests that the present value of a stream of dividends depend on both the magnitude and the timing of the dividend payments. The GSA's DCF results for the RHCs are based on the assumption that the RHCs pay dividends only at the end of each year. Since the RHCs pay dividends quarterly, and investors value the quarterly payment of dividends, the GSA's DCF results underestimate the RHCs' cost of equity.

Dr. Vander Weide also addressed the issue of flotation costs. The GSA's DCF results are based on the assumption that the risk-proxy companies incur no flotation costs when they issue equity securities. The GSA's no-flotation-cost

assumption is inconsistent with the reality that all firms which have sold securities in the capital markets have incurred some level of flotation costs, including underwriters' commissions, legal fees, and printing expenses. These costs are withheld from the proceeds of the stock sale or are paid separately and must be recovered over the life of the equity issue. Dr. Vander Weide shows that a flotation cost adjustment is required whether or not a company is expected to issue new stock in the near future and must be used in this proceeding.

**II. DR. VANDER WEIDE PROVIDES AN INDEPENDENT ESTIMATE OF THE ILECS' WEIGHTED AVERAGE COST OF CAPITAL.**

Dr. Vander Weide estimates the ILECs' overall weighted average cost of capital to be in the range of 12.7 percent to 13.2 percent. This estimate is based on a 6.68 percent market cost of debt, a 14.77 percent cost of equity, and a target market value capital structure containing between 75 percent and 80 percent equity.

**III. GTE RECOMMENDATIONS FOR THE TREATMENT OF THE LOWER FLOOR ADJUSTMENT MECHANISM ("LFAM").**

As GTE stated in its comments, it is no longer appropriate to continue to link the LFAM to rate of return regulation. Therefore, GTE believes that the LFAM should remain at its present level.<sup>5</sup> In its comments, AT&T attempts to use the current

---

<sup>5</sup> Nevertheless, GTE would support increasing the LFAM under specific conditions. For example, a full record could be established in separate proceedings that examine the impact of LFAM in price cap regulation. If it becomes apparent that the imposition of overly aggressive productivity factors and other regulatory constraints result in an environment where risks and incentives for price cap carriers are forced "out-of-balance", the LFAM should be raised. Absent such record, the Commission should not adjust the LFAM solely on the record of this rate of return proceeding.

proceeding to launch a campaign to eliminate the LFAM.<sup>6</sup> As Dr. Vander Weide concludes, the basis for such action simply does not exist. AT&T's argument, that the low-end adjustment mechanism rewards inefficient carriers, fails to recognize that price cap regulation provides very strong incentives for companies to be efficient. AT&T's argument, concerning the existence of alternative mechanisms for maintaining a carrier's financial viability, also misses the point. The low-end adjustment mechanism differs from the alternatives mentioned by AT&T in that it is certain, low cost, and temporary. The certainty of the low-end adjustment mechanism provides assurance to investors that the price cap LECs will not experience financial ruin due to price cap regulation. AT&T's final argument, that the low-end adjustment mechanism relies on a rate-of-return framework, is incongruous with AT&T's vigorous pleadings in price cap proceedings that the price cap LECs' rates should be reduced, and their productivity factor increased, because their rates of return were too high.

#### **IV. CONCLUSION.**

The GSA's approach to calculating the weighted average cost of capital is not correct. In fact, Dr. Vander Weide demonstrates that if the Commission truly desires to change the proscribed unitary rate of return, the correct level would be higher than the

---

<sup>6</sup> MCI also proposes that the LFAM be eliminated, or "set at a level as far below the unitary rate of return as the price cap LECs have earned above the unitary rate of return since sharing was eliminated." MCI at 2. MCI's draconian proposal is completely outside the purpose for which the LFAM was created – to provide the proper balance of incentives and safeguards to the price cap plan. MCI's proposal must be dismissed on its face.



current ordered level of 11.25%. He estimates the cost of capital for the ILECs is in the range of 12.7% to 13.2%. Because changing the authorized rate of return would be a significant undertaking for both the parties and the Commission, GTE urges the Commission defer the instant proceeding at least until such time as the major proceedings of the Telecommunications Act of 1996 have been substantially resolved. The resolution of these issues also may impact ILEC risk characteristics and their resulting cost of capital. However, should the Commission proceed with represcription, the Commission must adopt a methodology to calculate the LECs' weighted average cost of capital that is consistent with how the market will view the increased risk level of LECs when they attempt to maintain credit and attract capital. Proper application of such a methodology will lead to adoption of an authorized rate of return that is, in fact, higher than the current authorized rate. Additionally, in no event should the Commission continue to link the LFAM to historic rate of return regulation. Rather, the

LFAM should remain at its present level or be increased based on a careful examination of how the LFAM functions in relation to price cap regulation.

Dated: March 16, 1999

Respectfully submitted,

GTE Service Corporation and its affiliated  
domestic telephone operating companies

John F. Raposa  
GTE Service Corporation  
600 Hidden Ridge, HQE03J27  
P.O. Box 152092  
Irving, TX 75015-2092  
(972) 718-6969

By



Gail L. Polivy  
GTE Service Corporation  
1850 M Street, N.W.  
Washington, DC 20036  
(202) 463-5214

Their Attorneys

Attachment

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of )  
 )  
Prescribing the Authorized )  
Unitary Rate of Return for )  
Interstate Services of Local )  
Exchange Carriers )  
 )

CC Docket No. 98-166

**REPLY AFFIDAVIT OF JAMES H. VANDERWEIDE**  
**SUPPORTING REPLY COMMENTS OF GTE**

## Table of Contents

I.	Introduction.....	1
II.	Summary .....	2
III.	Cost of Debt and Capital Structure .....	6
IV.	The GSA's Proxy Group.....	13
V.	The Growth Component of the DCF Model .....	18
VI.	Market Weighting .....	24
VII.	DCF Model .....	25
VIII.	Risk .....	27
IX.	Independent Estimate of the ILECs' Weighted Average Cost of Capital .....	32
X.	Low-End Adjustment Mechanism .....	35

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of	)	
	)	
Prescribing the Authorized	)	CC Docket No. 98-166
Unitary Rate of Return for	)	
Interstate Services of Local	)	
Exchange Carriers	)	

**REPLY AFFIDAVIT OF JAMES H. VANDER WEIDE**

**I. Introduction**

1. My name is James H. Vander Weide. I am Research Professor of Finance and Economics at the Fuqua School of Business, Duke University. I am also President of Financial Strategy Associates, a firm that provides financial and economic consulting services primarily to companies in the electric, gas, insurance, telecommunications, and water industries. My business address is 3606 Stoneybrook Drive, Durham, North Carolina.

2. I previously submitted an affidavit in this proceeding on behalf of Bell Atlantic, GTE, and US West on January 19, 1999. My previous affidavit emphasized the need for the Commission to: (1) use current market values rather than historical costs to estimate the cost of debt and capital structure components of the weighted average cost of capital for those local exchange carriers ("ILECs"<sup>1</sup>) still subject to rate of return regulation; (2) send correct economic signals to potential entrants who must choose between leasing access from incumbents and building their own facilities; (3) recognize the significantly increased risks facing ILECs in providing access services; and (4) recognize that a correct estimate of the cost of capital, using

---

<sup>1</sup> Like the FCC, I use the acronym "ILECs" in this proceeding to refer to those local exchange carriers still subject to rate of return regulation. In more general usage, the acronym "ILECs" refers to all incumbent local exchange carriers, not just to those still subject to rate of return regulation.

market values, a market interest rate, and a market cost of equity, would likely exceed the Commission's currently authorized 11.25 percent rate of return.

3. In the initial round in this proceeding, the General Services Administration ("GSA") filed the Direct Case of the General Services Administration, which recommends a 9.5 percent allowed rate of return for the ILECs. The GSA's recommended allowed rate of return is based on a 7.39 percent estimate of the ILECs' cost of debt, a 10.75 percent estimate of the ILECs' cost of equity, and a capital structure containing 44 percent debt and 56 percent equity. Although the weighted average cost of capital using these data is 9.27 percent, the GSA recommends an overall rate of return of 9.5 percent because they recognize that 9.27 percent is significantly less than recent cost of capital findings of state utility commissions.

4. I have now been asked by Bell Atlantic, GTE, and U S West to review the GSA's Direct Case and to respond to their recommended overall allowed rate of return for the ILECs. As part of my evaluation of the GSA's Direct Case, I will present my own independent estimate of the ILECs' cost of capital. In addition, I will respond to AT&T's recommendation that the Commission should eliminate the low-end adjustment mechanism of price cap regulation.

## **II. Summary**

5. From my review of the GSA's Direct Case, I conclude that the GSA has significantly underestimated the ILECs' weighted average cost of capital. The GSA's underestimate of the ILECs' weighted average cost of capital is caused by: (1) their use of historically-oriented book value estimates, rather than actual market values, of the ILECs' cost of debt and capital structure; (2) their failure to recognize that the RHCs do not satisfy the basic stability assumptions of traditional cost of equity estimation techniques; (3) their use of historical data to estimate the RHCs' future growth; and (4) their gross misunderstanding of the risks the

ILECs' face in providing interstate access service. A summary of my conclusions is contained in the following paragraphs, and a complete discussion of my conclusions is contained in the following sections of this affidavit. On the basis of my own studies, I find that the ILECs' weighted average cost of capital is in the range 12.75 percent to 13.15 percent.

6. Cost of Debt and Capital Structure. The GSA's historical cost, book value definitions of the cost of debt and capital structure components of the ILECs' weighted average cost of capital are inconsistent with the forward-looking economic definition of the weighted average cost of capital. Economic and financial theory require that the cost of debt be measured in terms of market interest rates, not embedded costs, and that the capital structure be measured in terms of the market values of debt and equity, not the book values. Financial practitioners also use market interest rates and market value capital structures to estimate the cost of capital for purposes of entry, investment, and innovation decisions. If the Commission accepts the GSA's incorrect definition of the cost of debt and capital structure, it will send incorrect signals to capital market participants, including potential entrants who will find it less costly to use the ILECs' facilities at artificially low regulated rates than to build their own facilities at market-determined rates. The GSA's definition of the cost of capital would undermine the real economic benefits of competition, which come from facilities-based competition.

7. Proxy Companies. The GSA's proxy group of RHCs fails to satisfy the basic assumption of the DCF Model that companies operate in a stable environment where the companies' business operations and financing and dividend policies remain relatively constant. This stability assumption does not apply to the RHCs. The RHCs operate in an unstable environment where their business operations are being fundamentally transformed by mergers, acquisitions, and strategic investments in new technologies that permit the RHCs to participate in

the converging international market for voice, data, wireless, Internet, and video services. In addition, the RHCs are a poor proxy because of their small sample size, just five companies, and their decision to reduce their dividend payout ratios. The GSA could have avoided the problems of applying the DCF Model to the RHCs by choosing a large group of companies of comparable risk such as the S&P Industrials.

8. Growth. The GSA estimates the growth component of their DCF Model by averaging the five-year Analysts' Consensus Estimate ("ACE") of future earnings per share ("EPS") growth with another growth estimate that they incorrectly characterize as being an analysts' "three-year forecast of earnings per share." [GSA Direct Case at page 9.] In fact, the GSA's three-year growth rate is the RHCs' five-year historical growth in EPS. The GSA's use of a five-year historical EPS growth rate is completely inconsistent with the GSA's own statements that the RHCs' five-year historical growth rates have been highly distorted by numerous accounting write-offs and special charges [see GSA Direct Case at page 15]. In addition, the GSA fails to realize that historical growth is necessarily a poor indicator of future growth for companies whose businesses are being fundamentally transformed by competition, deregulation, and rapidly changing technology. The GSA's historical growth rates alone cause the GSA to underestimate the ILECs' cost of equity by 56 basis points.<sup>2</sup>

9. Market Weighting. The GSA estimates the ILECs' cost of equity by calculating an equally-weighted average of their DCF estimates for each of the five RHCs. The GSA's use of an equally-weighted average has a significant effect on their cost of equity estimate because of the considerable disparity in the GSA's DCF results across the RHCs and the disparity in the size of the RHCs. Financial analysts generally use market value weighted average DCF results to

---

<sup>2</sup> This calculation is based on a simple average, rather than a market-weighted average DCF result, and uses the GSA's stock prices and the ACE long-term growth estimates.



reflect the fact that investors hold more of large companies in their portfolios than small companies. The GSA's use of equal weighting, rather than market value weighting, reduces their cost of equity estimate for the ILECs by an additional 34 basis points. Thus, the GSA's mistaken use of historical growth rates and equal weighting causes the GSA to underestimate the ILECs' cost of equity by at least 90 basis points (34 plus 56).

10. Risk. The GSA continues to hold the outmoded view that access services are offered in a low-risk, near monopoly environment. Nothing could be further from the truth. Access services are among the riskiest of the RHCs' telecommunications services because: (1) a large proportion of the ILECs' access revenues come from a relatively small percentage of their access customers; (2) facilities-based competitive access providers have spent billions of dollars to build facilities which bypass the ILECs' access services; (3) the largest access customers, AT&T and MCI WorldCom, have purchased the largest competitive access providers in order to avoid ILEC access charges; (4) access services have historically been priced above incremental cost in order to recover part of the basic loop costs, and, therefore, the ILECs' competitors, who can structure their rates based on elasticity of demand, can specifically target access services; (5) technological developments are allowing customers to obtain telecommunications service through Internet service providers that are exempt from access charges; and (6) customers are increasingly avoiding access charges through the use of wireless services instead of wireline services.

11. Independent Estimate of the ILECs' Weighted Average Cost of Capital. I estimate the ILECs' overall weighted average cost of capital to be in the range 12.75 percent to 13.15 percent, based on a 6.68 percent market cost of debt, a 14.77 percent cost of equity, and a target market value capital structure containing between 75 percent and 80 percent equity.

### **III. Cost of Debt and Capital Structure**

12. The GSA measures the cost of debt and capital structure components of the ILECs' weighted average cost of capital from ARMIS data<sup>3</sup> on the Regional Bell Operating Companies' ("RBOCs") average embedded cost of debt. The GSA's historical cost, book value approach to estimating the cost of debt and capital structure components of the weighted average cost of capital is inconsistent with the market-oriented methods financial decision makers use to make investment and financing decisions. The GSA's historical cost, book value approach is also inconsistent with financial and economic theory.

13. Financial decision makers use market values to measure the required rate of return and risk on their investments because they make investment and financing decisions on a forward-looking, rather than a backward-looking basis. Homeowners, for example, always measure the equity in their homes in terms of market values because they know they can sell their homes in the market place at market value. Investors measure the risk and return on their investments using market value weights because they purchase stocks and bonds at market prices, not at book values. Corporate financial managers use a market value definition of the cost of capital to make investment and financing decisions because the capital to be invested is always measured at market value.

14. Because capital market participants measure expected return and risk in terms of market values, not book values, the GSA's book value approach to measuring the weighted average cost of capital would send incorrect economic signals to participants in

---

<sup>3</sup> The Commission recommended use of the ARMIS data in the 1995 Represcription Order, CC Docket 92-133, released April 6, 1995, stating at ¶121, "We adopt this presumptive methodology because...it provides greater promise than any other alternative of furthering our goal of simplifying future represcription proceedings without sacrificing needed accuracy." The market value capital structure data required by financial theory is clearly a more accurate representation of the ILECs' actual capital structures. This data is also readily available to the Commission, and its use would simplify future represcription proceedings even further.

telecommunications markets. In particular, the GSA's book value approach would send incorrect economic signals to competitors who will find it less costly to use the ILECs' at artificially low regulated rates than to build their own facilities at market-determined rates. The true economic benefits of competition in the local exchange come from facilities-based competition. The GSA's book value approach would also send incorrect economic signals to incumbent carriers who must decide whether to introduce new technologies in their networks.

15. The GSA's historical cost, book value approach to estimating the weighted average cost of capital is also inconsistent with financial and economic theory. Financial and economic theory require the use of market interest rates and market value capital structures to estimate the weighted average cost of capital because economists are concerned with decision making on a forward-looking, rather than a backward-looking or historical, basis. In particular: (1) market interest rates are the best measure of the amount firms would have to pay to raise debt capital on a going-forward basis; (2) market values are good approximations of the amounts that could be realized from the sale of the company's debt and equity securities; and (3) market values are the best measures of the amounts of debt and equity investors have invested in the company on a going-forward basis.

16. While economists universally recommend the use of market interest rates and market value capital structures to measure the weighted average cost of capital, they unanimously reject the use of embedded interest costs and book value capital structures. Book values provide highly distorted measures of the amount of equity investors have invested in the firm on a forward-looking basis.<sup>4</sup> Indeed, book values depend on accounting rules that are inherently backward looking, are influenced by one-time write-offs and extraordinary charges

---

<sup>4</sup> The amount of distortion caused by the use of book values is not as large for the debt component of a company's capital structure as for the equity component.

that have no effect on a company's projected cash flows and cost of capital, and provide for a great deal of managerial discretion.

17. In establishing its accounting rules, the accounting profession has emphasized the importance of correctly reporting the actual results of past performance, rather than reporting either current or prospective values based on the future earnings potential of the firm's investments. Values reported in the balance sheet for shareholders equity represent the residual balances of transactions recorded over many years; and these values characteristically bear little relationship to actual current values. In contrast, decision makers use market values of shareholders equity, because they are more concerned with future performance than past performance.

18. To illustrate the historical emphasis of accounting rules, recall that the book value of a company's equity is equal to the sum of paid in capital and accumulated retained earnings. Paid in capital represents the amount of equity capital the company has raised at then-current stock prices over the life of the company. Accumulated retained earnings are the sum of all earnings not paid out as dividends over all previous years of the company's history. Thus, the book value of the company's equity depends entirely on what has happened in the past rather than on what is expected to happen in the future.

19. The failure of book values to accurately reflect market values is also illustrated by the accounting rule that requires a company to value its assets at the lower of historical cost or market value. If market values rise above historical cost, managers are not allowed to increase the value of assets reported on their financial statements. However, if the market value of assets falls below adjusted historical cost, managers are required to write-down the value of the assets

reported on their books. Thus, there is a natural tendency for book values to understate the market value of both assets and equity by significant margins.

20. An example of how book value capital structures may be distorted by one-time accounting write-offs and extraordinary charges is shown on Schedule 1. During 1993—1995, telecommunications holding companies reduced the value of their equity by at least \$28.8 billion as a result of the discontinuation of regulatory accounting principles established in Financial Accounting Standard 71 (FAS 71) and for write-offs for Other Post Employment Benefits (OPEB).<sup>5</sup> These write-offs, which have no impact on the cash flows or market values of these companies, represent more than 52 percent of the total equity in these companies' capital structures. As a result of these write-offs, the telecommunications holding companies' book value capital structures no longer represent the historical proportions of debt and equity financing used by these companies. Since the market value of equity tends to exceed the book value of equity by a significant margin, book value capital structures also fail to reflect the prospective future proportions of debt and equity financing likely to be used by the telecommunications holding companies.

21. Book value capital structures also depend on accounting rules that allow a great deal of managerial discretion. The book value of a company's equity is defined as the sum of paid-in capital and accumulated retained earnings. The company's accumulated retained earnings are highly sensitive to management accounting decisions and estimates regarding the: choice of

---

<sup>5</sup>The \$28.8 billion estimate underestimates the total impact of all one-time write offs because it specifically excludes the enormous impact of OPEB write offs for those companies that took the write offs prior to 1993. Bell Atlantic, Ameritech, BellSouth, NYNEX, US West, and GTE all took large write offs for OPEB prior to 1993.

service lives to be used for depreciation purposes; choice between expensing or capitalizing certain expenditures; choice of time period during which good will, restructuring costs, and the transition obligation for post-retirement benefits will be amortized; choice of the moment in time when asset impairments and future liabilities should be recognized; and choice between treating certain expenditures as period or product expenses. Not surprisingly, many of these decisions and estimates vary widely across firms, even those in the same industry. Moreover, these accounting decisions have no impact on cash flow and no impact on the true underlying cost of capital.

22. The sensitivity of a company's book value capital structure to accounting rules that allow managerial discretion is demonstrated by the previous example I have cited relating to the FAS 71 and OPEB write-offs. While telecommunications holding companies wrote off in excess of 52 percent of the book value of their equity during 1993—1995 to reflect the discontinuation of FAS 71 and the implementation of OPEB, the timing and extent of the write-offs varied by firm. Reasonable managers at each company made different decisions that significantly impacted their company's book value capital structure. Yet none of these decisions affected the company's historical financing patterns or future financing strategies.

23. WinStar Communications, a national provider of local and long distance services, provides an excellent example of why book value capital structures are economically meaningless. WinStar ended 1998 with \$1,400 million in long-term debt and negative \$165 million in common equity. If investors measured WinStar's capital structure on a book value basis, they would likely conclude that WinStar is bankrupt and that further investment in WinStar would be foolhardy. Yet, WinStar continues to have access to both debt and equity segments of the capital markets. Furthermore, the market continues to value WinStar's shares

favorably. Indeed, the market capitalization of WinStar is approximately \$1.7 billion, as opposed to the book value of its equity of negative \$165 million. Obviously, investors do not rely on WinStar's book value capital structure in making investment decisions regarding the firm.

24. MCI WorldCom is another example of how historically-based accounting numbers fail to reflect future economic performance. In 1998, MCI WorldCom took a \$3.8 billion write off to reflect accounting adjustments made at the time of the MCI WorldCom merger. A large portion of these write-offs included the aggressive expensing of MCI's previously capitalized research and development costs, a merger-related accounting adjustment that is now being questioned by the SEC. Although the \$3.8 billion write-off significantly reduced the book value of MCI WorldCom's equity, it had no impact on the market value of MCI WorldCom's stock. Indeed, MCI WorldCom continues to be viewed as one of the telecommunications companies best positioned to succeed in the restructured international telecommunications environment.<sup>6</sup> MCI WorldCom's stock price has increased more than 81 percent since completion of the MCI/WorldCom merger.<sup>7</sup>

25. The GSA's use of an average book value, rather than an average market value capital structure, has a significant impact on their estimate of the ILECs' cost of capital. At year end 1997, the GSA's proxy group of RBOCs had an average book value capital structure containing 44 percent debt and 56 percent equity. At September 30, 1998, the RHCs' average market value capital structure contained 16.8 percent debt and 83.2 percent equity. If the GSA had used the RHCs' average market value capital structure to estimate the ILECs' weighted average cost of capital, its estimate of the ILECs' weighted average cost of capital would have

---

<sup>6</sup> See, for example, "MCI WorldCom, Inc.," Grubman, J.B., Salomon Smith Barney, October 9, 1998.

<sup>7</sup> The closing stock price on September 15, 1998, the first day after the merger, was \$45.50. The closing price on February 26, 1999 (the last day of trading in February) was \$82.50.

increased by 91 basis points.<sup>8</sup> The impact of the GSA's use of a book value capital structure would have been even larger if the GSA had correctly estimated the ILECs' cost of equity.<sup>9</sup>

26. While economic theory and practice strongly favor the use of a market value rather than a book value capital structure to measure the weighted average cost of capital, the Commission must still determine whose market value capital structure should be used to measure the ILECs' weighted average cost of capital. In making this decision, the Commission can take comfort in the fact that the average market value capital structures of the RHCs, the local exchange telecommunications firms in the S&P Industrials, the interexchange carriers ("IXCs"), and the S&P Industrials are approximately equal (see Schedule 2). On September 30, 1998, the average market value capital structures of the RHCs, the local exchange companies in the S&P Industrials,<sup>10</sup> and the S&P Industrials themselves contained 83.2 percent equity, 81.6 percent equity, and 82.1 percent equity, respectively. The average market value capital structure of the IXCs, AT&T and MCI WorldCom, contained 87.2 percent equity on September 30, 1998. Thus, a capital structure containing in excess of 80 percent equity is typical of both telecommunications companies and the S&P Industrials.

27. The reasonableness of using a market value capital structure containing more than 80 percent equity, and the unreasonableness of the GSA's book value capital structure containing only 56 percent equity, can also be demonstrated from capital market data typically used to value telecommunications companies. For example, Morgan Stanley values local exchange company

---

<sup>8</sup> This calculation is based on the GSA's 7.39 percent cost of debt and 10.75 percent cost of equity; of course, the GSA should also have used the market cost of debt rather than the embedded cost of debt and a more reasonable cost of equity capital.

<sup>9</sup> For example, if the GSA had estimated the ILECs' cost of equity to be just 12.5 percent, they would have been forced to conclude that the Commission should *increase* the ILECs' allowed rate of return from the currently authorized rate.

<sup>10</sup> RHCs, GTE, and ALLTEL.



assets by calculating the most recent EBITDA<sup>11</sup> and multiplying this value by a factor of 7 or 8. This value represents the market value of the enterprise, and the percent debt in the market value capital structure can be obtained by dividing total debt by the value of the enterprise.<sup>12</sup> I have performed this calculation for three groups of local exchange companies. To be conservative, I have reduced the EBITDA multiple in the calculation by 15 percent. This calculation results in a range of implied market value capital structures for the local exchange companies containing 16 percent to 22 percent debt and 78 percent to 84 percent equity (see Schedule 3).

#### **IV. The GSA's Proxy Group**

28. The GSA applies the DCF Model to the five RHCs—Ameritech, Bell Atlantic, BellSouth, SBC, and US West, as a proxy for the ILECs. In choosing the RHCs as proxies for the ILECs, the GSA fails to recognize that the DCF Model will only provide accurate estimates of the ILECs' cost of equity if the proxy companies obey the assumptions of the DCF Model. In particular, the DCF Model requires the assumption that the proxy firms operate in a stable environment where both the firm's business operations and its financing and dividend policies remain relatively constant. In fact, the RHCs operate in an unstable environment where their operations are being fundamentally transformed through regulatory restructuring, mergers, acquisitions, and strategic investments in new technologies that allow voice, data, and video services to be offered over the same facilities. In addition, the RHCs are in the process of reducing their dividend payout ratios to retain more capital for reinvestment in their businesses.

29. In response to the rapid changes occurring in telecommunications markets, telecommunications companies have used mergers and acquisitions to reposition themselves for

---

<sup>11</sup> EBITDA is defined as earnings before interest, taxes, depreciation, and amortization. It is frequently used as a measure of a company's ability to generate cash from its operations.

<sup>12</sup> Morgan Stanley Dean Witter, "Telecommunications Services—Sprint," December 3, 1998, page 3.